<u>C L A I M S</u>

1   1. A method of calibrating modification of optical devices,

2   comprising the steps of providing a mask with a predetermined pattern,

3   projecting radiation through the mask so as to form a patterned projected

4   image; and comparing a pattern of the projected image with a pattern of the

5   mask to determine deviations of the projected image from the image of the

6   mask.

1   2. A method as defined in claim 1, wherein said comparing

2   includes comparing a size of the projected image with the size of the image

3   on the mask.

1   3. A method as defined in claim 1, wherein said providing the

2   mask includes providing a mask which has at least two fields each having a

3   plurality of features spaced from one another in one direction so that the

4   directions of spacing of the features in said two fields are transverse to one

5   another.

1   4. A method as defined in claim 3, wherein said features in

2   each of said field are evenly spaced from one another.

1   5. A method as defined in claim 3, wherein said features in

2   each of said fields are parallel to one another.

1   6. A method as defined in claim 3; and further comprising

2   arranging the mask so that said features of at least one of said fields are

3   aligned with a principal axis of the optical device.

1   7. A method as defined in claim 3, wherein said features are

2   arranged so that a spacing between the features of one of said fields is

3   different from the spacing of said features of the other of said fields.

1   8. A method as defined in claim 1; and further comprising

2   moving an article on which the image is projected relative to the optical

3   device so as to produce a plurality of images with a plurality of patterns, said

4   comparing includes comparing the plurality of patterns of the plurality of

5   images with the pattern of the mask.

1   9. A method as defined in claim 1, wherein said obtaining of

2   the projected image includes providing a substrate, projecting the pattern

3   through the mask on the substrate, and obtaining the projected image on the

4   substrate.

1   10. A method as defined in claim 1, wherein said obtaining of

2   projected image includes passing the radiation through the mask and

3   obtaining an electronic image with a pattern, said comparing includes

4   comparing the pattern of the electronic image with the pattern of the mask.

1 11. A method as defined in claim 1, wherein said comparing

2 includes comparing a deviation of a magnification of the pattern and the

3 image relative to the pattern of the mask from a standard deviation.

1 12. A method as defined in claim 1, wherein said providing

2 includes forming a mask by an optical source producing an interference

3 pattern corresponding to the desired pattern of the mask.

1 13. A method as defined in claim 1, wherein said providing

2 includes producing the mask by an optical source which generates an

3 interference pattern and acts on a chemical substance to cause etching of

4 corresponding areas of the mask so as to produce the desired pattern of the

5 mask.